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# Shopping Suggestions

The activities in *Big Explosions and Strong Gravity* are designed to utilize readily accessible materials - most items can be purchased at a supermarket, mass merchandiser, or craft store. A few items are exclusively available through specialized suppliers, and this section provides detailed information about purchasing. This should be taken as suggestion only, and by no means as an exhaustive list.

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## Elements and You

This session uses examples of pure elements to guide student discussion about what an element is and what the differences between elements are. The simplest way to do this is to buy one of the science density kits that are out there and include cubes or cylinders of the same size made out of different metals (or alternately of the same mass and therefore different size, but having one of these remain constant will help with the comparison). Most of these kits will include materials that are not examples of elements, so this is something to watch out for.

- ♣ Uniscience Laboratories (<http://www.unisciencelab.com/>) has several options that will work with only the inclusion of brass as a non-element (look under Mechanics and then Cubes and Cylinders).
  - ◆ Metal Cubes
    - 10 mm sides
      - 3510-11: Aluminum
      - 3510-12: Brass
      - 3510-13: Copper
      - 3510-14: Iron
      - 3510-15: Lead
      - 3510-16: Zinc
      - 3510-01: Set of 6
    - 20 mm sides
      - 3510-21: Aluminum
      - 3510-22: Brass
      - 3510-23: Copper
      - 3510-24: Iron
      - 3510-25: Lead
      - 3510-26: Zinc

- 3510-02: Set of 6
  - 25 mm sides
    - 3510-03: Set of 6
  - 32 mm sides
    - 3510-04: Set of 6
    - 3520-01: Aluminum (with hook)
    - 3520-02: Brass (with hook)
    - 3520-03: Iron (with hook)
    - 3520-04: Lead (with hook)
    - 3520-05: Copper (with hook)
    - 3520-06: Zinc (with hook)
- ♦ Cylinders
  - 3523-00: Set of 5 (aluminum, lead, copper, brass, and zinc) of same mass and diameter but NOT length
  - 3525-01: Set of six 10 x 33 mm cylinders
  - 3525-02: Set of six 10 x 40 mm cylinders
- ♣ Science Kit and Boreal Laboratories (<http://sciencekit.com/>) has a set of equal mass (but not equal size) cubes in copper, aluminum, zinc, iron and brass.
  - ♦ Item #: WW4800900

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## Rainbow Analysis

This session requires diffraction grating, a thin plastic film available from Learning Technologies or Educational Innovations. See contact information above. Purchase at least 1 square inch per spectroscope.

Learning Technologies Item:

- ♣ PS-08A: Holographic Diffraction Grating (2 sheets, each 5 x 5 inch)

OR

Educational Innovations Item:

- ♣ PG-400: Single Axis Diffraction Grating (6" x 24" sheet)

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## Supernova Explosions

This activity uses a Hoberman sphere, which can be purchased at Toys 'R Us and other toy stores.

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## Periodic Tables

We have ordered our laminated periodic tables from

- ♣ <http://scientificsonline.com/product.asp?pn=3053431&bhcd2=1207752820>
- ♣ Additionally, notebook paper sized period tables as handouts can be found at the following sites:
- ♣ [http://www.schoolmasters.com/categories/productDetails.cfm?product\\_ID=15027&div=sc&category&bc3&details](http://www.schoolmasters.com/categories/productDetails.cfm?product_ID=15027&div=sc&category&bc3&details)
- ♣ <http://sciencekit.com/product.asp?pn=IG0019981&sid=2008FS&eid=2008FS&mr:trackingCode=9CE4179D-D605-DD11-AD5F-000423C27502&mr:referralID=NA&bhcd2=1207753692>